

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * * *

In the matter of the application of)	
THUMB ELECTRIC COOPERATIVE (1) for)	
a power supply cost recovery reconciliation)	Case No. U-17677-R
proceeding and (2) for a times interest earned ratio)	
ratemaking mechanism review, both for)	
the 12-month period ended December 31, 2015.)	
_____)	

At the November 7, 2016 meeting of the Michigan Public Service Commission in Lansing,
Michigan.

PRESENT: Hon. Sally A. Talberg, Chairman
Hon. Norman J. Saari, Commissioner
Hon. Rachael A. Eubanks, Commissioner

ORDER APPROVING SETTLEMENT AGREEMENT

On March 28, 2016, Thumb Electric Cooperative (Thumb) filed an application, with supporting testimony and exhibits, requesting a power supply cost recovery (PSCR) reconciliation proceeding and a times interest earned ratio (TIER) ratemaking mechanism review – both for the 12-month period ended December 31, 2015.

A prehearing conference was held on June 2, 2016, before Administrative Law Judge Suzanne D. Sonneborn. Thumb and the Commission Staff (Staff) participated in the proceedings. Subsequently, the parties submitted a settlement agreement resolving all issues in the case.

According to the terms of the settlement agreement, attached as Attachment A, Thumb reported an undercollection of \$39,918 for the 12-month period ended December 31, 2015. This amount, combined with the accumulated overrecovery balance of \$179,182 from previous years

and a projected \$324,422 undercollection that was included in Thumb's 2015 PSCR factor, resulted in a net underrecovery of \$185,158, as of December 31, 2015.

After Staff review, the parties agreed that Thumb had a net power supply cost overrecovery of \$139,262 as of December 31, 2015. The parties agreed that this amount should be the beginning balance for Thumb's 2016 PSCR reconciliation.

With respect to TIER ratemaking, if the calculated TIER is between 1.8 and 2.2, then the TIER is within the so-called "Quiet Zone," and there is no need to adjust rates. If the calculated TIER is greater than 2.2, Thumb must submit a calculation of revenue reductions or capital credit refunds necessary to return the TIER to 2.0. If the calculated TIER is below 1.8, Thumb must determine what revenue increase is necessary to bring the TIER back to 2.0.

The parties agreed that Thumb's adjusted TIER for the 12-month period ended December 31, 2015, was 1.33, which is below the TIER Quiet Zone, and Thumb will require a \$977,060 revenue increase. The parties agreed that the changes in Thumb's rates should be as reflected in the tariff sheets, attached as Exhibit A to the settlement agreement.

The Commission finds that the settlement agreement is reasonable and in the public interest, and should be approved.

THEREFORE, IT IS ORDERED that:

- A. The settlement agreement, attached as Attachment A, is approved.
- B. The parties agree that Thumb Electric Cooperative's cumulative 2015 power supply cost recovery reconciliation overrecovery is \$139,262 and that the overrecovery amount shall be the company's 2016 power supply cost recovery reconciliation beginning balance.

C. Thumb Electric Cooperative's adjusted times interest earned ratio for the 12-month period ended December 31, 2015, is below the Quiet Zone, and therefore, a revenue increase of \$977,060 is authorized.

D. The tariff sheets, attached as Exhibit A to the settlement agreement, are approved.

The Commission reserves jurisdiction and may issue further orders as necessary.

Any party desiring to appeal this order must do so by the filing of a claim of appeal in the Michigan Court of Appeals within 30 days of the issuance of this order, under MCL 462.26. To comply with the Michigan Rules of Court's requirement to notify the Commission of an appeal, appellants shall send required notices to both the Commission's Executive Secretary and to the Commission's Legal Counsel. Electronic notifications should be sent to the Executive Secretary at mpscdockets@michigan.gov and to the Michigan Department of the Attorney General - Public Service Division at pungp1@michigan.gov. In lieu of electronic submissions, paper copies of such notifications may be sent to the Executive Secretary and the Attorney General - Public Service Division at 7109 W. Saginaw Hwy., Lansing, MI 48917.

MICHIGAN PUBLIC SERVICE COMMISSION

Sally A. Talberg, Chairman

Norman J. Saari, Commissioner

Rachael A. Eubanks, Commissioner

By its action of November 7, 2016.

Kavita Kale, Executive Secretary

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * * *

In the matter of the application of THUMB ELECTRIC COOPERATIVE (i) for a power supply cost recovery recon- ciliation proceeding and (ii) for a TIER Ratemaking mechanism review – both for the twelve-month period ended December 31, 2015.)))))))	Case No. U-17677-R
---	---------------------------------	---------------------------

SETTLEMENT AGREEMENT

On March 28, 2016, Thumb Electric Cooperative (“Thumb”) filed with the Michigan Public Service Commission (“Commission”) its application, testimony, and exhibits requesting a power supply cost recovery (“PSCR”) reconciliation proceeding and a Times Interest Earned Ratio (“TIER”) Ratemaking Mechanism review – both for the 12-month period ended December 31, 2015.

At the initial prehearing conference on June 2, 2016, Administrative Law Judge Suzanne D. Sonneborn presiding, Thumb presented proof of service of the Notice of Hearing on all cities, incorporated villages, townships and counties in its service area, and also presented an affidavit evidencing the requisite publication of the Notice of Hearing. Thumb and the Michigan Public Service Commission Staff (“Staff”) participated in the proceeding and no others attempted to intervene or otherwise participate in the proceeding.

PSCR Reconciliation

According to its testimony and exhibits, for the 12-month period ended December 31, 2015, Thumb under-collected \$39,918. This amount, when combined with the accumulated over-recovery balance of \$179,182 from previous years, and a projected \$324,422 under-collection that was previously included in Thumb’s 2015 PSCR factor,

results in a net under-recovery of \$185,158, as of December 31, 2015. Thumb's filing proposed to roll-in this net over-recovery, as adjusted by any over or under collection, into its 2017 PSCR plan.

TIER Ratemaking

With respect to TIER Ratemaking, if the calculated TIER is between 1.8 and 2.2, then the TIER is within the so-called "Quiet Zone," and there need be no adjustment in rates. If the calculated TIER is greater than 2.2, Thumb must submit a calculation of revenue reductions or capital credit refunds necessary to return the TIER to 2.0. If the calculated TIER is below 1.8, Thumb must determine what revenue increase is necessary to bring the TIER back to 2.0.

By its filing, Thumb advised the Commission that its adjusted TIER for the 12-month period ended December 31, 2015 is 1.33, which is below the TIER Quiet Zone, such that Thumb requires a \$977,059 revenue increase.

Staff calculated a cumulative over-collection amount of \$139,262 for the 12-month period ended December 31, 2015. This amount should be the beginning balance for Thumb's 2016 PSCR reconciliation.

This proceeding was conducted as a contested case matter pursuant to Chapter 4 of the Administrative Procedures Act of 1969, 1969 PA 306. Prior to and following the June 2, 2016 prehearing conference, the parties exchanged information and discussed Thumb's PSCR reconciliation and TIER filing at length. As a result of those discussions, it is the opinion of the signatories hereto that this settlement agreement will promote the public interest, will aid the expeditious conclusion of this case and will minimize the time and expense which would otherwise have to be devoted to this matter by the Commission and the parties. This settlement agreement is for the purpose of

final resolution of the issues raised in this case only and all provisions of same are dependent upon all other provisions contained herein.

This Settlement Agreement is submitted pursuant to Section 78 of the Administrative Procedures Act of 1969, 1969 PA 306, MCL 24.278. By this Settlement Agreement, Thumb and Staff hereby agree and stipulate as follows:

1. Thumb's adjusted TIER for the 12-month period ended December 31, 2015 is 1.33, which is below the TIER Quiet Zone, such that a \$977,060 revenue increase should be authorized.

2. For purposes of this settlement only, the changes in rates will be reflected in Thumb's tariff sheets as set forth in Attachment A.

3. The parties agree that (a) Thumb's cumulative 2015 PSCR reconciliation over-recovery is \$139,262 and (b) that the over-recovery amount of \$139,262 should be Thumb's 2016 PSCR reconciliation beginning balance.

4. Each signatory hereto agrees not to appeal, challenge or contest the rates approved by the Commission in this case if they are the result of a Commission order accepting and approving this Settlement Agreement without modification. If the Commission does not accept this Settlement Agreement without modification, this Settlement Agreement shall be withdrawn and shall not constitute any part of the record in this proceeding or be used for any other purpose whatsoever.

5. The parties jointly recommend that the Commission issue its Order approving this Settlement Agreement.

6. This Settlement Agreement has been made for the sole and express purpose of reaching compromise among the positions of the signatory parties without prejudice to their rights to take new and/or different positions in future proceedings.

7. If the Commission approves this Settlement Agreement without modification, neither the parties to this Settlement Agreement nor the Commission shall make any reference to or use of the Settlement Agreement or the order approving it as a reason, authority, rationale or example for taking any action or position or making any subsequent decision in this case or any other cases or proceedings; provided, however, such reference or use may be made to enforce the Settlement Agreement and Order.

8. Section 81 of the Administrative Procedures Act of 1969, 1969 PA 306, MCL 24.281, is waived by the signatories.

Dated: October 14, 2016



COMMISSION STAFF

Michael J. Orris (P51232)
Assistant Attorney General
Public Service Division
7109 West Saginaw Highway, 3rd Floor
Lansing, MI 48917-1120
(517) 284-8140

Dated: October 14, 2016

Richard J.
Aaron

Digitally signed by: Richard J.
Aaron
DN: CN = Richard J. Aaron email =
raaron@dykema.com C = US O =
Dykema Gossett PLLC
Date: 2016.10.14 12:31:17 -05'00'

Richard J. Aaron (P35605)
DYKEMA GOSSETT PLLC
Attorneys for Thumb Electric Cooperative
Capitol View
201 Townsend Street, Suite 900
Lansing, MI 48933
(517) 374-9100

4849-2503-2250.2
025246\000002

Exhibit A

DEFINITIONS, TECHNICAL TERMS & ABBREVIATIONS

General Definitions

Commission - The Michigan Public Service Commission.

Company - The Thumb Electric Cooperative, Inc., a Michigan non-profit membership corporation engaged in the generation, transmission, distribution and sale of electric energy.

Customer - Any person, firm, corporation or other entity receiving electric service from the Company. Generally, customers will be members of the corporation in accordance with the Company's bylaws. Prospective customers may be referred to as "Applicants, Developers, or Property Owners".

Permanent - This term will designate regularly occupied homes or businesses which are installed on a permanent, rather than on a temporary basis. Buildings (including mobile homes) will not be considered permanent unless having an approved water supply and septic system. Sheds or similar services shall not be considered as permanent unless within 200' of the shed owners permanent residence or business and on the same parcel of land.

Year-Around - Service to customer at the address shown on customer's driver's license, voter's registration card or to customers occupying the premises which are considered to be Homestead Property according to Michigan Property Tax Law, **or to other customers with a minimum average monthly usage of 1,000 kWh.**

Seasonal - Service to customers other than year around.

Technical Terms & Abbreviations

Ampere (A) - Unit of electrical quantity or current.

Billing Demand - The peak or highest power consumption rate during the billing period, usually measured in kilowatts.

Billing Period - This term shall refer to the time period between two successive, scheduled meter readings.

Distribution Facilities - All wires, cables, poles, towers, fixtures, apparatus and other equipment installed in the Company's electric distribution system.

Primary - This term designates the voltage level of the Company's distribution facilities on the supply side of the service transformer. Primary voltages will usually be at 7.2/12.5 KV or 14.4/24.9 KV, but never less than 2.4 KV.

Secondary - This term will designate the voltage level of the Company's distribution facilities on the load side of the service transformer. Secondary voltages will usually, but not necessarily always, be 120, 208, 240, 277, or 480 volts.

Hertz (Hz) - Alternating current frequency in cycles per second.

Horsepower (hp) - Unit of mechanical power equivalent to .746 kw of electrical power.

(Continued on Sheet No. A-6.01)

Issued:
By: **Dallas R. Braun**
General Manager
Ubyly, Michigan

Effective for service rendered on
and after

Issued under authority of the
Michigan Public Service Commission
dated
in Case No. **U-17677-R**

STANDARD RULES AND REGULATIONS
(Continued From Sheet No. C-9.00)

A. Extension Policy

1. Residential & Farm Service

- a. Charges - For each permanent service, the Company will provide a single-phase line extension excluding service drop. Such extensions will require an advance deposit of \$5.50 per foot for overhead extensions and an advance deposit of \$8.50 per foot for underground extensions.

There will also be a nonrefundable contribution equal to the cost of right of way and clearing. Three-phase extensions will be on the same basis as Commercial and Industrial.

- b. Refunds - During the five (5) year period immediately following the date of payment, the company will make refunds without interest of the charges paid for a financed extension under provisions of Paragraph "a" above. The amount of any such refund shall be \$500 for each permanent electric service subsequently connected directly to the facilities financed by the customer. Such refunds will be made only to the original contributor and will not include any amount of contribution in aid of construction for underground service made under the provision of the company's underground service policy as set forth in this section. The total refund shall not exceed the refundable portion of the contribution.

2. Commercial or Industrial Service

- a. Company Financed Extensions - Except for contributions in aid of construction for underground service made under the provisions of Part III, B, of these rules, the Company may finance the construction cost necessary to extend its facilities to serve commercial or industrial customers when such investment does not exceed two (2) times the annual revenue anticipated to be collected from customers initially served by the extension.

- b. Charges - When the estimated cost of construction of such facilities exceeds the Company's maximum initial investment as defined in Paragraph "a", the applicant shall be required to make a deposit in the entire amount of such excess construction costs. Owners or developers of mobile home parks shall be required to deposit the entire amount of the estimated cost of construction, subject to the refund provisions of Paragraph "c".

- c. Refunds - That portion of the deposit related to the difference in the cost of underground construction and the equivalent overhead facilities shall be considered nonrefundable.

This amount shall be determined under applicable provisions of the Company's underground service policy as set forth in this section. The Company will make refunds on remaining amounts of deposits collected under the provisions of Paragraph (b) above in cases where actual experience shows that the electric revenues supplied by the customer are sufficient to warrant a greater initial investment by the Company. Such refunds shall be computed as follows:

(Continued on Sheet No. C-11.00)

Issued:
By: Dallas R. Braun
General Manager
Ubly, Michigan

Effective for service rendered on
and after

Issued under authority of the
Michigan Public Service Commission
dated
in Case No. **U-17677-R**

FARM AND HOME SERVICE
SCHEDULE A

Availability:

Available to members of the Thumb Electric Cooperative for all normal permanent year-around farm and home use, who require a transformer 50 kVa or less and have only one (1) point of service (transformer service) on the premises, subject to the established rules and regulations of the Cooperative.

Type of Service:

Alternating current, 60 hertz, at approximately 120/240 volts, single phase, three-wire or, where available, three phase, four-wire delta connected.

Monthly Rate:

Basic Service Charge	@	\$12.00
Energy Charge	@	\$0.12257/kWh

Energy Optimization Surcharge:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-20.03.

Minimum Charge:

The minimum monthly charge under this schedule shall not be less than \$12.00. The monthly minimum may be increased, in accordance with the Cooperative's rules and regulations, in those cases in which a greater than average investment is necessary in order to service an account under this schedule,

Power Supply Cost Recovery Clause and Factor:

This rate schedule is subject to the Cooperative's Power Supply Cost Recovery Clause as set forth on Sheet No. D-20.01.

Taxes:

Michigan State Sales Tax will be added to all billings whenever applicable.

Tax Adjustments:

- A. Bills shall be increased within the limits of political subdivisions which levy special taxes, license fees or rentals against the Cooperative's property, or its operations, or the production and/or sale of electric energy, to offset such special charges and thereby prevent other customers from being compelled to share such local taxes.
- B. Bills shall be increased to offset any new or increased specific tax or excise imposed by any governmental authority which increases the Cooperative's cost of providing electric energy.

Terms of Payment:

This rate is subject to the Allowable Charges as set forth on Sheet No. B-3.00.

Issued:
By: Dallas R. Braun
General Manager
Uby, Michigan

Effective for service rendered on
and after

Issued under authority of the
Michigan Public Service Commission
dated
in Case No. **U-17677-R**

OPTIONAL FARM AND HOME TIME-OF-DAY SERVICE
SCHEDULE A-TOD

Availability:

Available to members of the Cooperative for all normal farm and home use, who have only one (1) point of service (transformer service) on the premises, subject to the established rules and regulations of the Cooperative. The member must contract to receive service on this rate for a minimum of twelve months with a minimum average monthly usage of 1,000 kWh. Members taking service under the CWH, DF or ES rates are not eligible for service under the TOD rate. (This rate is only available to members being served on this rate prior to October 1, 2001.)

Type of Service:

Alternating current, 60 hertz, at approximately 120/240 volts, single phase, three-wire or, where available, three phase, four-wire delta connected.

Monthly Rate:

Basic Service Charge	@	\$25.00
Energy Charge		
On-Peak	@	\$0.11820/kWh
Intermediate	@	\$0.08265/kWh
Off-Peak	@	\$0.05678/kWh

Energy Optimization Surcharge:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-20.03.

Minimum Charge:

The minimum monthly charge under this schedule shall not be less than \$25.00. The monthly minimum may be increased, in accordance with the Cooperative's rules and regulations, in those cases in which a greater than average investment is necessary in order to service an account under this schedule.

Taxes:

Michigan State Sales Tax will be added to all billings whenever applicable.

Tax Adjustments:

- A. Bills shall be increased within the limits of political subdivisions which levy special taxes, license fees or rentals against the Cooperative's property, or its operations, or the production and/or sale of electric energy, to offset such special charges and thereby prevent other customers from being compelled to share such local taxes.
- B. Bills shall be increased to offset any new or increased specific tax or excise imposed by any governmental authority which increases the Cooperative's cost of providing electric energy.

Terms of Payment:

This rate schedule is subject to the Cooperative's Allowable Charges as set forth on Sheet No. B-3.00.

Definitions:

This rate schedule is subject to the Cooperative's definition of time periods as set forth on Sheet No. D-2.00.

Issued:
By: Dallas R. Braun
General Manager
Uby, Michigan

Effective for service rendered on
and after

Issued under authority of the
Michigan Public Service Commission
dated
in Case No. **U-17677-R**

SEASONAL AND LOW USAGE FARM & HOME SERVICE
SCHEDULE A-S

Availability:

Available to seasonal members as defined on Sheet No. A-6.00 and low usage non permanent Farm & Home uses, subject to the established rules and regulations of the Cooperative.

Type of Service:

Alternating current, 60 hertz, at approximately 120/240 volts, a single-phase, three-wire.

Monthly Rate:

Basic Service Charge	@	\$17.50
Energy Charge	@	\$0.14404 /kWh

Energy Optimization Surcharge:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-20.03.

Minimum Charge:

The minimum charge under this schedule shall not be less than \$17.50 per month. The minimum charge may be increased, in accordance with the Cooperative's rules and regulations, in those cases in which a greater than average investment is necessary in order to serve an account under this schedule.

Power Supply Cost Recovery Clause and Factor:

This rate schedule is subject to the Cooperative's Power Supply Cost Recovery Clause as set forth on Sheet No. D-20.01.

Billing:

Members taking service under this schedule will monthly be billed the monthly service charge and may be billed monthly for the energy charge if a reading is obtained. If readings are not secured, the energy will be billed annually.

Meter Reading:

The Cooperative will read each meter at least once each year.

Tax Adjustments:

- A. Bills shall be increased within the limits of political subdivisions which levy special taxes, license fees or rentals against the Cooperative's property, or its operations, or the production and/or sale of electric energy, to offset such special charges and thereby prevent other customers from being compelled to share such local taxes.
- B. Bills shall be increased to offset any new or increased specific tax or excise imposed by any governmental authority which increases the Cooperative's cost of providing electric energy.

(Continued on Sheet No. D-6.01)

Issued:
By: Dallas R. Braun
General Manager
Uby, Michigan

Effective for service rendered on
and after

Issued under authority of the
Michigan Public Service Commission
dated
in Case No. **U-17677-R**

SEASONAL AND LOW USAGE GENERAL SERVICE
SCHEDULE SGS

Availability:

Available to members of the Thumb Electric Cooperative, who occupy or make use of their facilities only a part of each year or at intervals during the year, for all uses, subject to the established rules and regulations of the Cooperative. In addition, this rate is available for non Farm & Home members with low annual usage of under 2,400 kWh. This schedule is specifically intended for, but not necessarily limited to, the following classes of service: seasonal commercial, seasonal industrial, irrigation system, isolated pumps, sheds, and any others that cannot be classified as Seasonal Farm & Home. Schools may have the option of taking service under this schedule, if they so choose.

Type of Service:

Alternating current, 60 hertz, single phase or three phase, at the Cooperative's available secondary voltages.

Monthly Rate:

Basic Service Charge	@	\$20.00
Energy Charge	@	\$0.13065/kWh

Energy Optimization Surcharge:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-20.03.

Minimum Charge:

The minimum charge under this schedule shall not be less than \$20.00 per month, plus the Energy Optimization Surcharge amount shown on Sheet No. D-20.03. The minimum charge may be increased, in accordance with the Cooperative's rules and regulations, in those cases in which a greater than average investment is necessary in order to serve an account under this schedule.

Power Supply Cost Recovery Clause and Factor:

This rate schedule is subject to the Cooperative's Power Supply Cost Recovery Clause as set forth on Sheet No. D-20.01.

Billing:

Members taking service under this schedule will monthly be billed the monthly service charge and may be billed monthly for the energy charge if a reading is obtained. If readings are not secured, the energy will be billed annually.

Taxes:

Michigan State Sales Tax will be added to all billings whenever applicable.

Tax Adjustments:

- A. Bills shall be increased within the limits of political subdivisions which levy special taxes, license fees or rentals against the Cooperative's property, or its operations, or the production and/or sale of electric energy, to offset such special charges and thereby prevent other customers from being compelled to share such local taxes.
- B. Bills shall be increased to offset any new or increased specific tax or excise imposed by any governmental authority which increases the Cooperative's cost of providing electric energy.

(Continued on Sheet No. D-7.01)

Issued:
By: Dallas R. Braun
General Manager
Ubyly, Michigan

Effective for service rendered on
and after

Issued under authority of the
Michigan Public Service Commission
dated
in Case No. **U-17677-R**

GENERAL SERVICE
SCHEDULE GS

Availability:

Available to members of the Thumb Electric Cooperative for all uses, subject to the established rules and regulations of the Cooperative, when billing demand is less than 50 kW. This schedule is specifically intended for, but not necessarily limited to, the following classes of service: commercial, industrial, public buildings, schools, churches and any other that cannot be classified as normal farm and home use.

Type of Service:

Alternating current, 60 hertz, single phase or three phase, at the Cooperative's available secondary voltages.

Monthly Rate:

Service Charge	@	\$13.75
Energy Charge	@	\$0.11653/kWh

Energy Optimization Surcharge:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-20.03.

Power Supply Cost Recovery Clause and Factor:

This rate schedule is subject to the Cooperative's Power Supply Cost Recovery Clause as set forth on Sheet No. D-20.01.

Minimum Charge:

The minimum charge under this schedule shall not be less than \$13.75, plus the Energy Optimization Surcharge amount shown on Sheet No. D-20.03. The monthly minimum charge may be increased, in accordance with the Cooperative's rules and regulations, in those cases in which a greater than average investment is necessary in order to serve an account under this schedule.

Taxes:

Michigan State Sales Tax will be added to all billings whenever applicable.

Tax Adjustments:

- A. Bills shall be increased within the limits of political subdivisions which levy special taxes, license fees or rentals against the Cooperative's property, or its operations, or the production and/or sale of electric energy, to offset such special charges and thereby prevent other customers from being compelled to share such local taxes.
- B. Bills shall be increased to offset any new or increased specific tax or excise imposed by any governmental authority which increases the Cooperative's cost of providing electric energy.

Terms of Payment:

Billings are due 21 days from the date of rendition for payment in full. A one-time late-payment charge of 5% of the unpaid balance will be assessed on any bill not paid by the due date.

Issued:
By: Dallas R. Braun
General Manager
Ubyly, Michigan

Effective for service rendered on
and after

Issued under authority of the
Michigan Public Service Commission
dated
in Case No. **U-17677-R**

OPTIONAL GENERAL TIME-OF-DAY SERVICE
SCHEDULE GS-TOD

Availability:

Available to members of the Cooperative for all uses, subject to the established rules and regulations of the Cooperative, when billing demand is less than 75 kW. Members with billing demands between 50 kW and 75 kW may elect to take service under either Rate Schedule GS or Rate Schedule LGS. This schedule is specifically intended for, but not necessarily limited to, the following classes of service: commercial, industrial, public buildings, schools, churches and any others that cannot be classified as normal farm and home use. The member must contract to receive service on this rate for a minimum of twelve months with a minimum average monthly usage of 1,000 kWh. Members taking service under the CWH, DF, or ES rates are not eligible for service under TOD rate. (This rate will not be available to members after October 1, 2001.)

Type of Service:

Alternating current, 60 hertz, single phase or three phase, at the Cooperative's available secondary voltages.

Monthly Rate:

Basic Service Charge	@	\$25.00
Energy Charge		
On-Peak	@	\$0.12763/kWh
Intermediate	@	\$0.08260/kWh
Off-Peak	@	\$0.05621/kWh

Energy Optimization Surcharge:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-20.03.

Minimum Charge:

The minimum charge under this schedule shall not be less than \$25.00, plus the Energy Optimization Surcharge amount shown on Sheet No. D-20.03. The monthly minimum charge may be increased, in accordance with the Cooperative's rules and regulations, in those cases in which a greater than average investment is necessary in order to serve an account under this schedule.

Taxes:

Michigan State Sales Tax will be added to all billings including minimums, whenever applicable.

Tax Adjustments:

- A. Bills shall be increased within the limits of political subdivisions which levy special taxes, license fees or rentals against the Cooperative's property, or its operations, or the production and/or sale of electric energy, to offset such special charges and thereby prevent other customers from being compelled to share such local taxes.

(Continued on Sheet No. D-9.01)

Issued:
By: Dallas R. Braun
General Manager
Uby, Michigan

Effective for service rendered on
and after

Issued under authority of the
Michigan Public Service Commission
dated
in Case No. **U-17677-R**

LARGE GENERAL SERVICE
SCHEDULE LGS

Availability:

Available to any members of the Thumb Electric Cooperative for all uses, subject to the Cooperative's rules and regulations, when billing demand is greater than 50 kW.

Type of Service:

Alternating current, 60 hertz, single phase or three phase, at the Cooperative's available secondary voltages.

Monthly Rate:

Demand Charge	@	\$10.00/kW
Energy Charge	@	\$0.08291/kWh

Energy Optimization Surcharge:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-20.03.

Power Cost Recovery Clause and Factor:

This rate schedule is subject to the Cooperative's Power Supply Cost Recovery Clause as set forth on Sheet No. D-20.01.

Billing Demand:

The billing demand shall be the kilowatts (kW) supplied during the 30-minute period of the maximum usage during the billing period, but not less than 65% of the highest monthly on-peak metered billing demand during the billing months of June, July, August, December, January, and February of the preceding eleven billing months, nor less than 50 kW.

Minimum Charge:

The minimum charge shall not be less than the demand charge, plus the Energy Optimization Surcharge amount shown on Sheet No. D-20.03. The monthly minimum charge may be increased, in accordance with the Cooperative's rules and regulations, in those cases in which a greater than average investment is necessary in order to serve an account under this schedule, in those cases in which maximum demand is highly seasonal in nature, and those cases in which the member's equipment causes high demands or short time duration or of intermittent nature.

Primary Service Discount:

A discount of 2.0 percent shall be applied to the bill if the customer owns the transformer and service is provided at primary voltage.

Power Factor:

The above rate charges are predicated upon the Consumer maintaining a power factor not less than ninety (90%) percent lagging. Cooperative reserves the right to measure power factor at any time by means of test or permanently installed metering equipment; and, if the Consumer's average power factor is found to be less than ninety (90%) percent lagging, the billing demand will be increased by the ratio that ninety (90%) percent bears to the Consumer's actual power factor.

(Continued on Sheet No. D-10.01)

Issued:
By: Dallas R. Braun
General Manager
Uby, Michigan

Effective for service rendered on
and after

Issued under authority of the
Michigan Public Service Commission
dated
in Case No. **U-17677-R**

LARGE POWER DISTRIBUTION SUBSTATION
SCHEDULE LPDS

Availability:

This rate is available only to Large Power Loads (Consumer) of 350 kW or greater to be served within 1,000 feet of the distribution substation.

Type of Service:

Alternating current, 60 hertz, single phase or three phase, at the Cooperative's available secondary voltages or primary voltages.

Monthly Rate:

Demand Charge	@	\$10.00/kW
Energy Charge	@	\$0.065859/kWh

Energy Optimization Surcharge:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-20.03.

Power Supply Cost Recovery Clause and Factor:

This rate schedule is subject to the Cooperative's Power Supply Cost Recovery Clause as set forth on Sheet No. D-20.01.

Maximum Billing Demand:

The billing demand shall be the kilowatts (kw) supplied during the 30-minute period of the maximum usage during the billing period, but not less than 65% of the highest monthly on-peak metered billing demand during the billing months of June, July, August, December, January, and February of the preceding eleven billing months, nor less than 50 kilowatts.

Minimum Charge:

The minimum charge shall not be less than the billing demand charge as above, plus the Energy Optimization Surcharge amount shown on Sheet No. D-20.03. The monthly minimum charge may be increased, in accordance with the Cooperative's rules and regulations, in those cases in which a greater than average investment is necessary in order to serve an account under this schedule, in those cases in which maximum demand is highly seasonal in nature, and those cases in which the member's equipment causes high demands of short time duration or of intermittent nature.

Primary Service Discount:

A discount of 2.0 (2%) percent shall be applied to the bill if the customer owns the transformer and service is provided at primary voltage.

(Continued on Sheet No. D-11.01)

Issued:
By: Dallas R. Braun
General Manager
Ubyly, Michigan

Effective for service rendered on
and after

Issued under authority of the
Michigan Public Service Commission
dated
in Case No. **U-17677-R**

OUTDOOR PROTECTIVE LIGHTING SERVICE
SCHEDULE PL
(Continued From Sheet No. D-12.00)

Monthly Rate:

Using existing pole and secondary facilities:

175 watt mercury vapor lamp	\$12.52
400 watt mercury vapor lamp	\$19.75
100 watt high pressure sodium	\$12.52
250 watt high pressure sodium	\$19.75
LED alternative for 175 watt mercury vapor lamp	\$10.52*
LED alternative for 100 watt high pressure sodium	\$10.52*

*Plus an up-front installation charge of **\$85** per fixture

Energy Optimization Surcharge:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-20.03.

Special Terms and Conditions:

The above rate is based on the use of existing poles and secondary facilities. If one or more new poles are required, the above rates shall be increased by \$3.00 per month per new pole, secondary span, or transformer required solely for a light. For lights installed on and after September 23, 2008, the above rates shall be increased \$5.00 per month per pole, secondary span, and an additional \$10.00 per month if a transformer is installed solely for the light.

Taxes:

Michigan State Sales Tax will be added to all billings whenever applicable.

Tax Adjustments:

- A. Bills shall be increased within the limits of political subdivisions which levy special taxes, license fees or rentals against the Cooperative's property, or its operations, or the production and/or sale of electric energy, to offset such special charges and thereby prevent other customers from being compelled to share such local taxes.
- B. Bills shall be increased to offset any new or increased specific tax or excise imposed by any governmental authority which increases the Cooperative's cost of providing electric energy.

Power Supply Cost Recovery Clause and Factor:

This rate schedule is subject to the Cooperative's Power Supply Cost Recovery Clause as set forth on Sheet No. D-20.01.

(Continued on Sheet No. D-12.02)

Issued:
By: Dallas R. Braun
General Manager
Ubyly, Michigan

Effective for service rendered on
and after

Issued under authority of the
Michigan Public Service Commission
dated
in Case No. **U-17677-R**

CONTROLLED WATER HEATER SERVICE
SCHEDULE CWH

Availability:

Available to members of the Thumb Electric Cooperative, already taking service under Rate Schedule A, A-S or GS, who desire controlled water heating service to single tank installations. Energy will be metered through the regular service meter. Members may choose between a 40 or more gallons option (option 1), a 80 or more gallons option (option 2), or a third option available to those not qualifying under Options 1 or 2 above (option 3), as described below. To qualify for this rate, the sole source of water heating must be electricity.

The minimum period of service is for one year and requires a signed agreement with the Cooperative.

Type of Service:

Alternating current, 60 hertz, at approximately 120/240 volts, single phase, three-wire or, where available, three phase, four-wire delta connected service will be controlled by the Cooperative's radio control system.

Hours of Service:

Option 1: For members choosing the 40 or more gallons option, control of service shall not exceed 4 hours per day, said hours to be established from time-to-time by the Cooperative but shall be predominantly between the hours of 11 a.m. to 10 p.m.

Option 2: For members choosing the 80 or more gallons option, control of service shall not exceed 6 hours per day, said hours to be established from time-to-time by the Cooperative but shall be predominantly between the hours of 11 a.m. to 10 p.m.

Option 3: For members not qualifying under Option 1 or 2 above, control of service shall not exceed 2 hours per day, said hours to be established from time-to-time by the Cooperative but shall be predominantly between the hours of 11 a.m. to 10 p.m. (This option will not be available to members after October 1, 2005.)

Monthly Rate:

For members choosing option 1, a credit of **\$6.00** per month will be applied to the bills of members who permit the Cooperative to install a remote control device on the member's electric water heater. A member must use a minimum of 350 kWh per month per water heater before a water heater credit will be given.

For members choosing option 2, a credit of **\$7.52** per month will be applied to the bills of members who permit the Cooperative to install a remote control device on the member's electric water heater. A member must use a minimum of 500 kWh per month per water heater before a water heater credit will be given.

For members choosing option 3, a credit of **\$1.25** per month will be applied to the bills of members who permit the Cooperative to install a remote control device on the member's electric water heater. No minimum usage is required for this option.

These credits are to be applied before the bill under Rate Schedule A, A-S or GS is tested against the appropriate minimum charge for Schedules A, A-S or GS.

Energy will be charged the appropriate rate per kWh as specified on Sheet No. D-4.00 for service in conjunction with Schedule A, on Sheet No. D-6.00 for service in conjunction with Schedule A-S or on Sheet No. D-8.00 for service in conjunction with Schedule GS, including applicable fuel and power supply cost recovery adjustments and taxes.

Issued:
By: Dallas R. Braun
General Manager
Ubyly, Michigan

Effective for service rendered on
and after

Issued under authority of the
Michigan Public Service Commission
dated
in Case No. **U-17677-R**

INTERRUPTIBLE HEATING & COOLING SERVICE
SCHEDULE IHC

Availability:

Available to members of the Thumb Electric Cooperative, already taking service concurrently under another rate schedule. This rate is for interruptible service to heating and cooling systems, which are controlled by the cooperative. Service is subject to the established rules and regulations of the Cooperative. Service to interruptible load shall be taken through separately metered circuits and permanently wired. Service to interruptible load may not be transferred to firm service circuits to avoid interruption. A backup non-electrical heating source is recommended but not required.

Type of Service:

Alternating current, 60 hertz, at approximately 120/240 volts, single phase, three-wire. Service under this schedule will be available at all times except when interrupted by the cooperative during times of peak system demand or system emergencies. Interruption shall not exceed 30 minutes in any hour for no more than 8 hours in any one day.

Monthly Rate:

Energy Charge @ **\$0.08061/kWh**

Energy Optimization Surcharge:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-20.03.

Taxes:

Michigan State Sales Tax will be added to all billing whenever applicable.

Tax Adjustments:

- A. Bills shall be increased within the limits of political subdivisions which levy special taxes, license fees or rentals against the Cooperative's property, or its operations, or the production and/or sale of electric energy, to offset such special charges and thereby prevent other customers from being compelled to share such local taxes.
- B. Bills shall be increased to offset any new or increased specific tax or excise imposed by any governmental authority which increases the Cooperative's cost of providing electric energy.

Terms of Payment:

This rate schedule is subject to the terms of payment as set forth in the concurrent rate schedule that qualifies the member for service.

Issued:
By: Dallas R. Braun
General Manager
Uby, Michigan

Effective for service rendered on
and after

Issued under authority of the
Michigan Public Service Commission
dated
in Case No. **U-17677-R**

DUAL FUEL HEATING SERVICE
SCHEDULE DF

Availability:

Available to members of the Thumb Electric Cooperative, already taking service concurrently under another rate schedule. This rate is for interruptible service to dual fueled heating loads, which are controlled by the Cooperative. Service is subject to the established rules and regulations of the Cooperative. Service to interruptible load shall be taken through separately metered circuits and permanently wired. Service to interruptible load may not be transferred to firm service circuits to avoid interruption. A backup non-electrical heating source is required.

Type of Service:

Alternating current, 60 hertz, at approximately 120/240 volts, single phase, three-wire. Service under this schedule will be available at all times except when interrupted by the Cooperative during times of peak system demand or system emergencies. The total number of hours that this load will be interrupted shall be limited to a maximum of 400 hours per year, and 8 hours per day.

Monthly Rate:

Energy Charge @ **\$0.07557/kWh**

Energy Optimization Surcharge:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-20.03.

Taxes:

Michigan State Sales Tax will be added to all billings whenever applicable.

Tax Adjustments:

- A. Bills shall be increased within the limits of political subdivisions which levy special taxes, license fees or rentals against the Cooperative's property, or its operations, or the production and/or sale of electric energy, to offset such special charges and thereby prevent other customers from being compelled to share such local taxes.
- B. Bills shall be increased to offset any new or increased specific tax or excise imposed by any governmental authority which increases the Cooperative's cost of providing electric energy.

Terms of Payment:

This rate schedule is subject to the terms of payment as set forth on the concurrent rate schedule that qualifies the member for service.

Issued:
By: Dallas R. Braun
General Manager
Udly, Michigan

Effective for service rendered on
and after

Issued under authority of the
Michigan Public Service Commission
dated
in Case No. **U-17677-R**

ENERGY STORAGE
SCHEDULE ES

Availability:

Available to members of the Thumb Electric Cooperative, already taking service concurrently under another rate schedule. This rate is for interruptible service to energy storage loads, which are controlled by the Cooperative. Service is subject to the established rules and regulations of the Cooperative. Service to interruptible load shall be taken through separately metered circuits and permanently wired. Service to interruptible load may not be transferred to firm service circuits to avoid interruption. (This rate is only available to members being served on this rate prior to November 25, 2013.

Type of Service:

Alternating current, 60 hertz, at approximately 120/240 volts, single phase, three-wire. Service under this schedule will be available for approximately 8 hours per day, normally 11:00 p.m. to 7 a.m. or as established by the Cooperative, and approved by the Michigan Public Service Commission.

Monthly Rate:

Energy Charge @ **\$0.05984/kWh**

Energy Optimization Surcharge:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-20.03.

Taxes:

Michigan State Sales Tax will be added to all billings whenever applicable.

Tax Adjustments:

- A. Bills shall be increased within the limits of political subdivisions which levy special taxes, license fees or rentals against the Cooperative's property, or its operations, or the production and/or sale of electric energy, to offset such special charges and thereby prevent other customers from being compelled to share such local taxes.
- B. Bills shall be increased to offset any new or increased specific tax or excise imposed by any governmental authority which increases the Cooperative's cost of providing electric energy.

Terms of Payment:

This rate schedule is subject to the terms of payment as set forth on the concurrent rate schedule that qualifies the member for service.

Issued:
By: Dallas R. Braun
General Manager
Uby, Michigan

Effective for service rendered on
and after

Issued under authority of the
Michigan Public Service Commission
dated
in Case No. **U-17677-R**

STANDARD RULES AND REGULATIONS
Power Supply Cost Recovery Clause
(Continued From Sheet No. D-20.00)

Not more than 45 days following the last day of each billing month in which a power supply cost recovery factor has been applied to customers' bills, Cooperative shall file with the Commission a detailed statement for that month of the revenues recorded pursuant to the power supply cost recovery factor and the allowance for cost of power included in the base rates established in the latest Commission order for Cooperative and the cost of power supply.

Not less than once a year and not later than 4 months after the end of the 12-month period covered by Cooperative's most recently authorized power supply cost recovery plan, a power supply cost reconciliation proceeding will be conducted to reconcile the revenues recorded pursuant to the power supply cost recovery factor and the allowance for cost of power included in the base rates as established by the Commission under Cooperative's most recent power supply cost recovery plan, among other things. Cooperative shall be required to refund to customers, or to credit to customers' bills any net amount determined to have been recovered, which is in excess of the amounts actually expended by Cooperative for power supply. Cooperative shall recover from customers any net amount by which the amount determined to have been recovered over the period covered was less than the amount determined to have been actually expended by Cooperative for power supply.

For the eleven months ending November 2016, the Power Supply Cost Recovery Factor is $-\$0.01008$ per kWh based on the allowance for cost of power supply included in the base rates of $\$0.06725$ per kWh. For the one month ending December 2016, the Power Supply Cost Recovery Factor is $-\$0.00558$ per kWh based on the allowance for cost of power supply included in the base rates is $\$0.06275$ per kWh.

Should the Cooperative apply lesser factors than those above, or if the factors are later revised pursuant to Commission Orders or 1982 PA 304, the Cooperative will notify the Commission and file a revision of the above factors.

The following factors are applied pursuant to 1982 PA 304 in the 12 billing months ending December 2016.

Year	Month	Maximum Authorized 2016 PSCR Factor (Per kWh)	Actual Factor Billed (Per kWh)
2016	January	$-\$0.01008$	$-\$0.01008$
2016	February	$-\$0.01008$	$-\$0.01008$
2016	March	$-\$0.01008$	$-\$0.01008$
2016	April	$-\$0.01008$	$-\$0.01008$
2016	May	$-\$0.01008$	$-\$0.01008$
2016	June	$-\$0.01008$	$-\$0.01008$
2016	July	$-\$0.01008$	$-\$0.01008$
2016	August	$-\$0.01008$	$-\$0.01008$
2016	September	$-\$0.01008$	$-\$0.01008$
2016	October	$-\$0.01008$	$-\$0.01008$
2016	November	$-\$0.01008$	$-\$0.01008$
2016	December	$-\$0.00558$	$-\$0.00558$

Issued:
By: Dallas R. Braun
General Manager
Uby, Michigan

Effective for bills rendered
For the 2016 PSCR Plan Year.

Issued under the authority of the
Michigan Public Service Commission
on in Case No. **U-17677-R**

CONTROLLED CENTRAL AIR CONDITIONING SERVICE
SCHEDULE CAC

Availability:

Available to members of the Thumb Electric Cooperative, already taking service concurrently under Rate Schedule A, A-S, or GS, who desire controlled service to central air conditioning systems. Service is subject to the established rules and regulations of the Cooperative and energy will be metered through the regular service meter. (This rate is only available to members being served on this rate prior to November 25, 2013.

The minimum period of service is for one year and requires a signed agreement with the Cooperative. To qualify for service under this schedule, the member must permit the Cooperative to install a remote control device on the member's central air conditioning system. The remote control device must be installed before May 1 and be continuously available for operation by the Cooperative through September 30 of any calendar year.

Type of Service:

Alternating current, 60 hertz, at approximately 120/240 volts, single phase, three-wire subject to control by the Cooperative's radio control system.

Service under this schedule will be available at all times except when controlled by the cooperative during times of peak system demand or system emergencies. Control shall not exceed 30 minutes in any hour and not more than 8 hours of total interruption in any one day.

Monthly Rate:

Members qualifying for service under this schedule shall receive a credit of **\$19.00** per year applied to bills issued for September usage. If, for any reason, the member discontinues service under this schedule before September 30 of the current year, the credit will be forfeited without proration.

Issued:
By: Dallas R. Braun
General Manager
Uby, Michigan

Effective for service rendered on
and after

Issued under authority of the
Michigan Public Service Commission
dated
in Case No. **U-17677-R**

Transmission Standby Service
Schedule TSB

Availability

Availability for Standby Electric Service to member-consumers within the retail service territory of Thumb Electric Cooperative who own and operate their own generating units which under normal operating conditions are used to supply all or a portion of the member-consumers' power and energy requirements. Member-consumers served under this rate shall have installed generation equipment with a nameplate capacity of not less than 200 kilowatts and shall enter into a Service Agreement with the Cooperative. This schedule does not provide for the purchase of any generation output by the Cooperative. The rate is not available for Retail Access Service.

Type of Service

Alternating current at transmission voltages of 40KV or greater where the member-consumer owns all service and transformer equipment.

Monthly Rate

<u>Facility Charge</u> – Such amount as may be stated in the Service Agreement	
<u>Service Charge</u> – Per service location	\$200.00/month
<u>Energy Charges</u> – Energy Rate	\$.06299 per kWh
<u>Demand Charge</u> – Maximum Demand	\$3.00/KW

Energy Optimization Surcharge:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-20.03.

Determination of Contract Billing Demand

The Maximum Billing Demand shall be the maximum thirty (30) minute kilowatt (kW) demand metered during the billing month.

Determination of Billing Energy

The cooperative shall provide or cause to be provided at member-consumers' expense metering and associated equipment that shall maintain separately the total energy delivered to the member-consumer during periods when the member-consumer's consumption exceeds its energy output. Total billing energy shall be the total energy delivered to the member-consumer during the billing month.

Power Factor

The above rate charges are predicated upon the consumer maintaining a power factor not less than 90 (90%) percent lagging. The Cooperative reserves the right to measure power factor at any time by means of test or permanently installed metering equipment; and, if the consumer's average power factor is found to be less than 90 (90%) percent lagging, the metered maximum demand will be increased by the ratio that 90 (90%) percent bears to the consumer's actual power factor.

(Continued on Sheet No. D-26.01)

Issued:
By: Dallas R. Braun
General Manager
Ubyly, Michigan

Effective for service rendered on
and after

Issued under authority of the
Michigan Public Service Commission
dated
in Case No. **U-17677-R**